

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: John G. McCarthy Examiner: Niketa Patel
Serial No.: 10/645,721 Group Art Unit: 2181
Filed: August 20, 2003 Docket No.: 100200842-1
Title: Method and Apparatus for Managing Device Reservation

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is filed in response to the Final Office Action mailed November 17, 2008 and Notice of Appeal filed on February 17, 2009.

AUTHORIZATION TO DEBIT ACCOUNT

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's deposit account no. 08-2025.

I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals, judicial proceedings, or interferences known to appellant, the appellant's legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Appeal Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 – 6 and 8 – 11 are pending in the application. Claims 12 – 15 and 17 – 25 are withdrawn from consideration, and claims 7 and 16 were canceled. Claims 1 – 6 and 8 – 11 are finally rejected. The rejection of claims 1 – 6 and 8 – 11 is appealed.

IV. STATUS OF AMENDMENTS

On February 17, 2009, Appellants filed an after-final amendment wherein a typographical error was corrected in claim 1. This amendment cured an objection noted in the final office action mailed November 17, 2008. In an advisory mailed March 5, 2009, the examiner indicated that the amendment was entered.

All amendments have been entered. Section VIII Claims Appendix shows the pending claims with the amendment to claim 1 entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R.

§ 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element or that these are the sole sources in the specification supporting the claim features.

Claim 1

Claim 1 is directed to a method. By way of example, Fig. 2 shows an exemplary method for reserving a device. The method recites three elements (i), (ii), and (iii) upon receiving a device command from a first host (see Fig. 2, #205, lines 1-6 of paragraph [0012] on p. 4 : Example, commands such as SCSI, iSCSI, and Fibre Channel are sent from a host to a storage device). Under element (i), the claim recites reserving for the first host a device targeted by the device command (see Fig. 2, #220, paragraphs [0013 – 0014] on pages 4-5: The command reserves the storage device for the host.). Under element (ii), the claim recites setting a reservation time period for expiration of the reservation, the reservation time period being determined based on a command type of the device command (see Fig. 2, #225, paragraphs [0013 – 0016] on pages 4-5. By way of example, as noted in paragraph [0014], some commands require device reservation. Example commands to a storage tape device include write, read, seek, rewind, load, and unload.) Under element (iii), other hosts are prevented from interfering with the data transfer operation between the first host and the storage device during the reservation time period. (See lines 3-7 of paragraph [0014] on p. 5. Commands such as write, read, seek, rewind, and load prevent hosts from interfering with a data transfer operation of the requesting host.).

Claim 8

Claim 8 is directed to the method of claim 1, wherein the device command comprises one of a write command, a rewind command, a read command, a load command, an unload command, and a seek command (see Fig. 2 and description at lines 3-5 of paragraph [0014] on p. 5).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 and 8-10 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2003/0187908 (Boucher) in view of US publication number 2004/0236615 (Msndy).

Claims 2 and 11 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2003/0187908 (Boucher) in view of US publication number 2004/0236615 (Msndy) and GB 2379769 (Tawil).

Claims 3 – 6 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2003/0187908 (Boucher) in view of US publication number 2004/0236615 (Msndy) and US publication number 2003/0005130 (Cheng).

VII. ARGUMENT

The rejection of claims 1 – 6 and 8 – 11 is improper, and Appellants respectfully request reversal of these rejections.

The claims do not stand or fall together. Instead, Appellants present separate arguments for various claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 C.F.R. § 41.37(c)(1)(vii).

Claim Rejections: 35 USC § 103(a)

Claims 1 and 8-10 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2003/0187908 (Boucher) in view of US publication number 2004/0236615 (Msndy). These rejections are traversed.

Principles of Law: Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification (see *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. A cad. a/Sci.Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)).

Although a patent applicant is entitled to be his or her own lexicographer of terms in a claim, in *ex parte* prosecution the lexicography must be within limits. *In re Carr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. See also *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Principles of Law: Obviousness

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385 (2007):

Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.

Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in MPEP 2143.03, to ascertain the differences between the prior art and the claims at issue, “[a]ll claim limitations must be considered” because “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385.

According to the Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the *Graham* factual inquiries are resolved, there must be a determination of whether the claimed invention would have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable

results; (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S., 82 USPQ2d 1385 (2007).

Furthermore, as set forth in *KSR International Co. v. Teleflex Inc.*, quoting from *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasonings with some rational underpinning to support the legal conclusion of obviousness.”

Therefore, if the above-identified criteria and rationales are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

Scope and Content of Art and Overview of Claims

As a precursor to the arguments, Appellants provide an overview of the claims and the primary references. This overview will assist in determining the scope and content of the prior art as required in Graham (see *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 setting out an objective analysis for applying 103 rejections).

The claims are directed to a method wherein a host sends a device command to a device target in order to reserve the device target. For example, a host computer sends a reservation command to a storage device, such as a tape drive. Upon receiving the device command, a reservation time period is set for the host. The reservation time period for the host is “based on a command type of the device command.” Thus, the type of command sets the reservation time period. Example commands that initiate a reservation time period include write, read, seek, rewind, load, and unload commands to a tape drive.

Boucher is directed to a priority control program that ensures customers receive a service level based on what level they paid for regardless of which resources are used to process the customer request (see Boucher at paragraph [0007]). Boucher thus teaches giving customers priority based on what level of service the customer has paid for, has earned, or has been assigned (see Boucher at paragraph [0032]). The level of service is not based on a type of command, but what level of service the customer bought.

Msndy is directed to a method for booking a parking space for an automobile parking meter. Users are able to reserve a parking space in advance.

Cheng is directed to systems and methods that transfer audio-video information via a Universal Plug and Play (UPnP) network. Fig. 4 shows a diagram showing how a reservation process works when a manager attempts to reserve a resource. Initially, a requestor sends a request that may be either a RESERVE or RELEASE message to a resource manager, such as resource manager 320 of Fig. 3 (see paragraph [0048]). If the message is a RESERVE request, then the resource manager attempts to reserve the resource. The request can reserve a resource for a period of time, known as the reservation time period. In Cheng, the reservation time period is based on time periods specified in the request itself and not based on a type of command received (see paragraph [0052]).

Differences Between the Art and Claims

Each of the independent claims recites one or more elements that are not taught or suggested in Boucher in view of Msndy. These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

These differences are shown below and presented with separate headings for different claim groups.

Sub-Heading: Claims 1-6 and 9-11

Independent claim 1 is selected for discussion.

As one example, independent claim 1 recites receiving a device command from a first host for a data transfer operation to a storage device. The claim then recites preventing other hosts from interfering with the data transfer operation between the first host and the storage device during a reservation time period. Boucher in view of Msndy does not teach or suggest this claim element.

Boucher teaches giving customers priority based on what level of service the customer has paid for, has earned, or has been assigned (see Boucher at paragraph [0032]). Nowhere does Boucher teach or even suggest that other customers are preventing from interfering with a data transfer operation between one customer and a storage device during a reservation time period set for the one customer.

Msndy is directed to a method for booking a parking space for an automobile parking meter. Paragraph [0131] in Msndy teaches that retractable bollards are used to block users from using a parking space when such users have not reserved the parking space. This section of Msndy is not related whatsoever to preventing hosts from interfering with a data transfer operation between a first host and a storage device during a reservation time period.

The differences between the claims and the teachings in the art are great since the references fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, the claims are allowable over the art of record.

As another example, claim 1 recites setting a reservation time period for expiration of a reservation of a storage device. The examiner argues that Boucher teaches this element in paragraphs [0038 – 0039]. Appellants respectfully disagree.

Paragraphs [0038 – 0039] discuss a task priority table for customers having a particular service level. For example, a higher priority is given to Gold customers than to Bronze customers. Paragraph [0038] states that the task priority tables are expanded by adding indices such as time of day. Notice, however, that Boucher never discusses

reservation time period for expiration of a reservation of a storage device. Expiration of a reservation is never discussed or even suggested.

Msndy fails to cure these deficiencies since it is related to an entirely different invention (i.e., reserving parking meters for automobiles).

The differences between the claims and the teachings in the art are great since the references fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, the claims are allowable over the art of record.

As yet another example, claim 1 recites that the reservation time period is determined based on a command type of the device command. The examiner argues that this claim element is taught in Boucher. Appellants respectfully disagree.

Boucher teaches a customer tag that includes customer identification, customer level of service, and system identification. The command type of the customer tag does not determine the reservation time period. Instead, the customer level service in the customer tag corresponds to the task priority tables which, as noted above, do not include reservation time periods.

Msndy fails to cure these deficiencies since it is related to an entirely different invention (i.e., reserving parking meters for automobiles).

The differences between the claims and the teachings in the art are great since the references fail to teach or suggest all of the claim elements. As such, the pending claims are not a predictable variation of the art to one of ordinary skill in the art.

For at least these reasons, the claims are allowable over the art of record.

Further, Appellants respectfully state that Boucher in view of Msndy is not properly combinable for obviousness.

Factors/Rationale Do Not Support Obviousness

In determining obviousness, neither the particular motivation to make the claimed invention nor the problem the inventor is solving controls. The proper analysis is whether the claimed invention would have been obvious to one of ordinary skill in the art after consideration of all the facts. Further, although the Supreme Court in KSR cautioned against an overly rigid application of the teaching-suggestion-motivation (TSM) rationale, the Supreme Court recognized that TSM was one of a number of valid rationales that could be used to determine obviousness.

Appellants discuss examples of rationale or factors below to show that there is no finding of obviousness.

As a first factor, Appellants respectfully submit that no teaching or suggestion exists to make the combination because the references are directed to completely different inventions. Boucher (in US classification 709/103) is directed to a priority control program that ensures customers receive a service level based on what level they paid for regardless of which resources are used to process the customer request (see Boucher at paragraph [0007]). **By contrast, Msndy teaches a completely different and unrelated invention.** Msndy (in US classification 705/5) is directed to reserving parking meters for automobiles.

As a second factor, Boucher and Msndy would have to be greatly modified to arrive at the claimed invention. Boucher uses priority levels of customers to determine CPU time, disk I/O, a network I/O. By contrast, Msndy expressly teaches users reserving parking meters for their vehicles. The architecture taught in Boucher would have to be greatly modified to accommodate the teachings in Msndy.

As a third factor, the differences between the claims and the applied references are great. Examples of these differences are discussed above in connection with independent claim 1.

As a fourth factor, the Examiner is performing an improper piecemeal construction that uses hindsight to arrive at the claim elements. In other words, the

Examiner is picking and choosing unrelated and isolated sentences or teachings from Boucher and Msndy with hindsight of Appellants' invention to allegedly obviate the pending claims. One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

As a fifth factor, no reasonable expectation of success has been established for modifying Boucher with the teachings of Msndy to arrive at the recitations of the claims. Boucher uses a complex architecture to determine resource distribution to customers, such as CPU time, disk I/O, threads, and processes. The parking meter technology in Msndy would have to be greatly modified to function in the complex architecture of Boucher.

As a sixth factor, Appellant argues that no teaching or suggestion exists to make the combination because the references are directed to solving completely different problems. The background in Boucher discusses problems with priorities of operating system (OS) scheduling processes and threads for customers. By contrast, the background in Msndy discusses problems associated with people obtaining parking spaces.

These various factors show that elements in the claims are not obvious in view of the Boucher in view of Msndy.

Sub-Heading: Claim 8

Claim 8 recites that the device command comprises one of a write command, a rewind command, a read command, a load command, an unload command, and a seek command. The examiner argues that this claim element is taught in Boucher at paragraph [0006] and [0057]. Appellants respectfully disagree.

Paragraph [0006] in Boucher provides a general discussion of resource priority for customers. Paragraph [0057] discusses a priority control program that tracks resource usage of a customer (for example, track CPU time, I/O requests, and bytes read and written). Nowhere do these paragraphs suggest that the reservation time is based on a device command that is one of a write command, a rewind command, a read command, a load command, an unload command, and a seek command. Boucher expressly teaches that priority is based on what service the customer paid for.

Claim Rejections: 35 USC § 103(a)

Claims 2 and 11 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2003/0187908 (Boucher) in view of US publication number 2004/0236615 (Msndy) and GB 2379769 (Tawil). These rejections are traversed.

As discussed above, Boucher in view of Msndy fail to teach or suggest all elements of independent claim 1. Tawil fails to cure these deficiencies. For at least the reasons given in connection with independent claim 1, dependent claims 2 and 11 are allowable.

Claim Rejections: 35 USC § 103(a)

Claims 3 – 6 are rejected under 35 USC § 103(a) as being unpatentable over US publication number 2003/0187908 (Boucher) in view of US publication number 2004/0236615 (Msndy) and US publication number 2003/0005130 (Cheng). These rejections are traversed.

As discussed above, Boucher in view of Msndy fail to teach or suggest all elements of independent claim 1. Cheng fails to cure these deficiencies. For at least the reasons given in connection with independent claim 1, dependent claims 3 – 6 are allowable.

Further, Appellants respectfully state that Boucher in view of Msndy and Cheng are not properly combinable. By way of example and as discussed below, Msndy and Cheng do not support obviousness.

Factors/Rationale Do Not Support Obviousness

In determining obviousness, neither the particular motivation to make the claimed invention nor the problem the inventor is solving controls. The proper analysis is whether the claimed invention would have been obvious to one of ordinary skill in the art after consideration of all the facts. Further, although the Supreme Court in KSR cautioned against an overly rigid application of the teaching-suggestion-motivation (TSM) rationale, the Supreme Court recognized that TSM was one of a number of valid rationales that could be used to determine obviousness.

Appellants discuss examples of rationale or factors below to show that there is no finding of obviousness.

As a first factor, Appellants respectfully submit that no teaching or suggestion exists to make the combination because the references are directed to completely different inventions. Cheng (in US classification 709/228) is directed to systems and methods that transfer audio-video information via a Universal Plug and Play (UPnP) network. Fig. 1 in Cheng shows a block diagram of a system 100 having UPnP enabling logic 120 in a host system 110 that interacts with controlled or slave devices 171, 181. Fig. 4 shows a diagram showing how a reservation process works when a manager attempts to reserve a resource. **By contrast, Msndy teaches a completely different and unrelated invention.** Msndy (in US classification 705/5) is directed to reserving parking meters for automobiles.

As a second factor, Cheng and Msndy would have to be greatly modified to arrive at the claimed invention. Cheng uses a host and slave architecture or infrastructure so audio and video information can be transferred to an UPnP network. The host sends commands to the slave devices. Msndy never teaches or even suggests receiving commands from hosts using such an architecture as taught in Cheng. By contrast, Msndy expressly teaches users reserving parking meters for their vehicles. The architecture taught in Msndy would have to be greatly modified to accommodate the teachings in Cheng.

As a third factor, the differences between the claims and the applied references are great. Examples of these differences are discussed above in connection with independent claim 1.

As a fourth factor, the Examiner is performing an improper piecemeal construction that uses hindsight to arrive at the claim elements. In other words, the Examiner is picking and choosing unrelated and isolated sentences or teachings from Cheng and Msndy with hindsight of Appellants' invention to allegedly obviate the pending claims. One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

As a fifth factor, no reasonable expectation of success has been established for modifying Cheng with the teachings of Msndy to arrive at the recitations of the claims. Cheng uses a host and slave architecture to transmit audio and video information through a very specific type of network, known as an UPnP network. Msndy teaches reserving a parking meter so a user can park his or her vehicle. These architectures are very different. For example, Cheng explains that UPnP architecture uses peer-to-peer (P2P) network connectivity (see paragraph [0004]). This network is designed for audio-video (AV) information. Msndy would have to be greatly modified to function in a P2P network for receiving AV information from networked hosts using command types particular to UPnP.

As a sixth factor, Appellant argues that no teaching or suggestion exists to make the combination because the references are directed to solving completely different problems. The background in Cheng discusses problems with UPnP networks, such as not supporting multiple applications, not ensuring quality of service to applications, and requiring UPnP applications to be resident to execute activities. By contrast, the background in Msndy discusses problems associated with people obtaining parking spaces.

These various factors show that elements in the claims are not obvious in view of the Cheng in view of Msndy.

CONCLUSION

In view of the above, Appellants respectfully request the Board of Appeals to reverse the Examiner's rejection of all pending claims.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

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VIII. Claims Appendix

1. (previously presented) A method comprising:

upon receiving a device command from a first host for a data transfer operation to a storage device,

- i) reserving for the first host the storage device targeted by the device command;
- ii) setting a reservation time period for expiration of a reservation of the storage device, the reservation time period being determined based on a command type of the device command; and
- iii) preventing other hosts from interfering with the data transfer operation between the first host and the storage device during the reservation time period.

2. (original) The method of claim 1, further comprising upon receiving a second device command from the first host, resetting the reservation time period.

3. (original) The method of claim 1, further comprising:

upon receiving a device command targeted to the device from a second host,
determining if the device is reserved; and
if the device is reserved to a host other than the second host , denying the device command from the second host.

4. (original) The method of claim 3, wherein determining if the device is reserved comprises determining if the reservation time period has expired.
5. (original) The method of claim 3, further comprising if the device is not reserved, executing the device command from the second host.
6. (original) The method of claim 3, wherein the device command from the second host comprises a clear command.
7. (cancelled)
8. (original) The method of claim 1, wherein the device command comprises one of a write command, a rewind command, a read command, a load command, an unload command, and a seek command.
9. (original) The method of claim 1, wherein the device command comprises a tape device command.
10. (original) The method of claim 1, wherein the device command comprises a disk device command.
11. (original) The method of claim 1, wherein the device command comprises a Small Computer System Interface (SCSI) command.

12. (withdrawn) A method comprising:

upon receiving a first command of a predetermined type from a first host, and if a device targeted by the first command is not reserved,

- i) reserving the device for the first host; and
- ii) setting a predefined reservation time period for expiration of the reservation, the predefined reservation time period not being specified by the first device command;

upon receiving a subsequent command of a predetermined type from the first host, while the device is reserved for the first host, resetting the reservation time period; and

upon receiving the subsequent command of a predetermined type from the first host, when the reservation status is not reserved for the first host, processing the subsequent command as the first command.

13. (withdrawn) The method of claim 12, further comprising upon receiving a second command of a predetermined type targeted to the device from a second host, while the device is reserved for the first host, denying the second command.

14. (withdrawn) The method of claim 13, wherein the second command comprises one of a write command, a rewind command, a read command, a load command, an unload command, and a seek command.

15. (withdrawn) The method of claim 13, wherein the second command comprises a clear command.

16. (cancelled)

17. (withdrawn) The method of claim 16, wherein the first command and the second command comprise Small Computer Systems Interface (SCSI) commands.

18. (withdrawn) The method of claim 17, wherein the second command comprises one of an inquiry command, a request sense command, and a log sense command.

19. (withdrawn) An apparatus comprising:

an interface to receive commands from a plurality of hosts;
a reservation agent, communicatively coupled to the interface, the reservation agent to determine if a device targeted by a first command is reserved, and if the device is not reserved, to reserve the device for a first host initiating the first command, and to set a reservation time period for expiration of the reservation, the reservation time period being based on a command type of the device command.

20. (withdrawn) The apparatus of claim 19, wherein the reservation agent is further to deny a second command targeted to the device received from a second host while the device is reserved to the first host.

21. (withdrawn) The apparatus of claim 19, wherein the reservation agent is further to reset the reservation time period upon receiving a second command targeted to the device from the first host while the device is reserved for the first host.

22. (withdrawn) An apparatus comprising:

first means for receiving commands from a plurality of hosts; and
second means, communicatively coupled to the first means, for determining if a device targeted by a first command is reserved, for reserving the device for a first host initiating the first command upon receiving the first command while the device is not reserved, and for setting a reservation time period for expiration of the reservation, the reservation time period being based on a command type of the device command.

23. (withdrawn) The apparatus of claim 22, wherein the second means further comprises means for denying a second command targeted to the device received from a second host while the device is reserved for the first host.

24. (withdrawn) A method comprising:

upon receiving a device command from a first host,
i) reserving for the first host a device targeted by the device command; and
ii) setting a predefined reservation time period for expiration of the reservation, the predefined reservation time period not being specified by the device command.

25. (withdrawn) A method comprising:

upon receiving a device command from a first host,

i) reserving for the first host a device targeted by the device command; and

ii) setting a reservation time period for expiration of the reservation, the

reservation time period being set to begin running after the device command has
executed.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.